



PATENT ABSTRACTS OF JAPAN

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application: **05. 12 . 85**(51)Int. Cl **B41J 3/04**(21)Application number: **59102286**(22)Date of filing: **21 . 05 . 84**(71)Applicant: **CITIZEN WATCH CO LTD**(72)Inventor: **AOKI YASUSHI
AZUMA AKIRA**(54)**HIGH-SPEED INK JET PRINTER**

(57)Abstract:

PURPOSE: To form a simply structured high-speed ink jet printer by keeping intact the relationship between a rotary roller as a common electrode and plural opposed electrodes provided outside the rotary roller and providing ink nozzles away from the rotary roller.

CONSTITUTION: The external circumferential surface of a rotary drum 2 is composed of a metal plate 20 and works concurrently as a common electrode. In the meantime, plural linear conductive paths 10 and opposed electrode plates 14 are formed on a substrate 6 in the same manner as when a printed circuit board is manufactured. On the substrate 6, a rectangular porous glass wall 8 is bonded to form ink nozzles 16, to each of which opposed electrode plates 14 are provided. An electric discharge is generated between the rotary drum 2 as a common electrode and individual opposed electrodes in the ink apertures 16,

and an electric shock caused by the discharge sends ink droplets flying over a recording paper 4. Thus the printer is capable of printing at high speed despite its simple structure.

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